International Training Centre
(Nuclear Security & Nonproliferation)

February 3, 2011
Objective of ITC

- International Hub center for education and training regarding security, safeguards and import & export control

- Platform for domestic mandatory education (Nuclear Security & Safeguards)

- R&D for physical protection system
Role of ITC

- International & Domestic Education
- Training
- Evaluation
- Technical Support
- R&D
- International Cooperation
Overall feature of the centre

- Location: Daejeon, ROK
- Area: 39,000 m²
- Center Building: 5 stories
- Facility: Test bed, central alarm station and lecture rooms
Overall feature of the centre

Sector I: Mock-up facilities of conventional PP system

Sector II: Radiation Portal Monitoring and Entry Control System

Sector III: Simulation and Destructive test facility

Sector IV: Test-field for Advanced PP system
### Plans - Sectors for tests and training

#### Sector I
- Mock-up facilities of conventional PP system
  - Fences, Active Infrared Sensor
  - Magnetic Field Sensor, etc.

#### Sector II
- Radiation Portal Monitoring and Entry Control System
  - Vehicle inspection system at Megaports
  - Entry and Search control system for educational purpose

#### Sector III
- Simulation facility for Force-on-Force exercise
- Destructive test facility
  - Cutting test on Fences, Crash test on barriers, etc.

#### Sector IV
- Test-field for Advanced PP system
  - Planed to be used or State of the art sensors system
  - Thermal detection camera, Sonar, Laser Fence etc.
Education Program

□ Education and Training (International)

- **Nuclear Security (English course)**
  - Expected participants: Foreigners (Asia, Arab etc.)
  - Number of attendee: 30 persons (Tentative)/per course
  - Lecturers: Korean, Foreign experts (IAEA, US etc)
  - Program contents: Current tendency of nuclear terrorism, Design and evaluation of a physical protection system, Detection and Response to an illegal act involving nuclear and radioactive materials, etc
  - Using Test bed that will be constructed
  - Visit nuclear facility (Research reactor, nuclear power plant etc)
Education Program

• **International Safeguards (English course)**
  - Expected participants: Foreigners (Asia, Arab etc.)
  - Number of attendee: 30 persons (Tentative)/per course
  - Lecturers: Korean, Foreign experts (IAEA, US etc)
  - Program contents: MC&A, IAEA system, national system, etc.
  - Test lab will be installed in the ITC
  - Visit nuclear facility (Research reactor, nuclear power plant etc)

• **Imports & Exports control (English course)**
  - Expected participants: Foreigners (Asia, Arab etc.)
  - Number of attendee: 30 persons (Tentative)/per course
  - Lecturers: Korean, Foreign experts (IAEA, US etc)
  - Program contents: Export & import control, NSG guidelines
  - Collaboration with CITS
Education Program

□ Domestic Mandatory course

- **Nuclear Security (Mandatory course)**
  ▶ Expected participants: Nuclear facility operators, site safeguards
  ▶ Number of attendee: 800 persons (Tentative)/per year
  ▶ Lecturers: Korean experts (KI NAC, Military etc.)
  ▶ Program contents: Introduction of physical protection, Design basis threat, contingency plan, physical protection system, etc.

- **Safeguards (Mandatory course)**
  ▶ Expected participants: Researchers who deal with nuclear materials those who
  ▶ Number of attendee: 200 persons/per year
  ▶ Lecturers: Korean experts (KI NAC, MEST etc.)
  ▶ Program contents: International safeguards, international regime for non-proliferation, MC&A etc.
Education Program

- Education program collaboration with universities (under construction)

  • **Install regular course at universities**
    - Expected participants: students with Master’s degree or Ph.D
    - Number of attendee: 20 persons (Tentative)/per year
    - Lecturers: Korean and Foreign experts (IAEA, US etc.)
    - Program contents:
      - Nuclear Security
      - International and National Safeguards system
      - Imports and exports system
    - Conclusion of MOU with Seoul National University in 2010
R&D activities

- **Experiments on physical protection system**
  - Performance tests on the equipment for physical protection system (sensors, barrier etc.)
  - Produce data for use in evaluating the vulnerability of nuclear facilities
  - Tests on newly developed equipments
Concluding Remarks

□ The ROK has established national regime of nuclear security abiding by the international standards

□ The center will be constructed by 2013 and open to the world in 2014

□ International cooperation is essentially needed to use this center more efficiently and effectively